

Industrial Engineering and Management

Study Year 1, Academic Year 2011/12 (Mandatory Courses)

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | 11/12 sp4 |
|------------------------|---------|-------|-------------|----------|-------------------------------------|----------|---|--------------|
| FMAA05 | 15 | G1 | - | S | Calculus in One Variable | | KS KE U W T | |
| MIOA01 | 9 | G1 | - | S | Managerial Economics, Basic Course | | KS KE U W T | |
| FMA420 | 6 | G1 | - | S | Linear Algebra | | KS KE U W T | |
| FMA430 | 6 | G1 | - | S | Calculus in Several Variables | | KS KE U W T | |
| FMEA10 | 9 | G1 | - | S | Engineering Mechanics, Basic Course | | KS KE U W T | |
| FAFA15 | 9 | G1 | - | S | Energy and Environmental Physics | | KS KE U W T | 1 |
| MIO022 | 6 | G2 | - | S | Management Organization | | KS KE U W T | 1 |

Study Year 2, Academic Year 2012/13 (Mandatory Courses)

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | 12/13 | 12/13 | 12/13 | 12/13 |
|------------------------|---------|-------|-------------|----------|---------------------------------------|----------|-----------------------------|-------|-------|-------|-------|
| | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| EXTA40 | 6 | G1 | - | S | Introduction to Microeconomic Theory | | KS KE U W T | 1 | | | |
| MTTF01 | 5 | G2 | - | S | Logistics | | KS KE U W T | 1 | | | |
| EMS012 | 9 | G2 | - | S | Mathematical Statistics, Basic Course | | KS KE U W T | 1 | 2 | | |
| MIOF01 | 9 | G2 | - | S | Marketing and Globalization | | KS KE U W T | | 2 | 3 | |
| EDA017 | 9 | G1 | - | S | Programming, First Course | | KS KE U W T | | 2 | 3 | |
| EMAF01 | 7 | G2 | - | S | Mathematics - Analytic Functions | | KS KE U W T | | | 3 | |
| MIO040 | 6 | G2 | - | S | Managerial Economics, Advanced Course | | KS KE U W T | | | | 4 |

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | | |
|------------------------|---------|-------|-------------|----------|--|----------|--------------------|--------------------|-------------------|-------------------|-------------------|---|
| | | | | | | | 12/13 sp1 | 12/13 sp2 | 12/13 sp3 | 12/13 sp4 | | |
| EMAF05 | 7 | G2 | - | S | Mathematics - Systems and Transforms | | KS | KE | U | W | T | 4 |
| MIOF05 | 2 | G2 | - | S | Project in Managerial Economics, Advanced Course | | KS | KE | U | W | T | 4 |

Study Year 3, Academic Year 2013/14 (Mandatory Courses)

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | 13/14 | 13/14 | 13/14 | 13/14 |
|------------------------|---------|-------|-------------|----------|--|----------|-----------------------------|-------|-------|-------|-------|
| | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| MIO310 | 6 | G2 | - | S | Operations Research – Basic Course | | KS KE U W T | 1 | | | |
| MMTA05 | 6 | G1 | - | S | Production Systems | | KS KE U W T | 1 | | | |
| EMIF01 | 6 | G2 | - | S | Environmental System Studies: Management for Sustainable Development | | KS KE U W T | 1 | 2 | | |
| EXTF45 | 6 | G2 | - | S | Financial Management | | KS KE U W T | | 2 | | |
| FRT010 | 7.5 | G2 | - | S | Automatic Control, Basic Course | X | KS KE U W T | | | 3 | |

[FRT010](#) Automatic Control, Basic Course: *13 who will study elective block at University of Connecticut, should register for [FRT010](#) in study period 2, autumn 13.*

Study Year 3, Academic Year 2013/14 (Elective Mandatory Courses)

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | 13/14 | 13/14 | 13/14 | 13/14 |
|------------------------|---------|-------|-------------|----------|--|----------|---|-------|-------|-------|-------|
| | | | | | | | | sp1 | sp2 | sp3 | sp4 |
| MVKN35 | 6 | A | - | S | Energy Markets | X | KS KE U W T | | 2 | | |
| MMT045 | 7.5 | A | - | S | Flexible Manufacturing Systems | X | KS KE U W T | | 2 | | |
| EITF25 | 6 | G2 | X | E | Internet - Techniques and Applications | X | KS KE U W T | | 2 | | |
| EMA051 | 6 | A | X | E1 | Optimization | X | KS KE U W T | | 2 | | |
| FHLA01 | 6 | G1 | - | S | Solid Mechanics, Basic Course | X | KS KE U W T | | 2 | | |
| FKM015 | 7.5 | G1 | - | S | Materials Engineering, Basic Course | X | KS KE U W T | | | 3 | |
| EDAA01 | 7.5 | G1 | - | S | Programming - Second Course | X | KS KE U W T | | | 3 | |

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | | | |
|------------------------|---------|-------|-------------|----------|---|----------|--------------------|--------------------|-------------------|-------------------|-------------------|---|---|
| | | | | | | | 13/14 sp1 | 13/14 sp2 | 13/14 sp3 | 13/14 sp4 | | | |
| EITF11 | 10 | G2 | - | S | Digital Systems, Project Laboratory | X | KS | KE | U | W | T | 3 | 4 |
| EMI040 | 7.5 | A | - | S | Energy Systems Analysis: Renewable Sources of Energy | X | KS | KE | U | W | T | 3 | 4 |
| EMIN05 | 7.5 | A | - | S | Environmental System Studies: Climate, Science and Politics | X | KS | KE | U | W | T | 3 | 4 |
| MMT045 | 7.5 | A | - | S | Flexible Manufacturing Systems | X | KS | KE | U | W | T | | 4 |
| FBR012 | 7.5 | G2 | X | E | Fundamental Combustion | X | KS | KE | U | W | T | | 4 |
| FMSN40 | 9 | A | X | E1 | Linear and Logistic Regression with Data Gathering | X | KS | KE | U | W | T | | 4 |
| FMN050 | 6 | G2 | X | E1 | Numerical Analysis | X | KS | KE | U | W | T | | 4 |

| Course Code | Credits | Cycle | S.Ex. stud. | Language | Course Name | Footnote | Links | | | | | |
|------------------------|---------|-------|-------------|----------|--|----------|--------------------|--------------------|-------------------|-------------------|-------------------|---|
| | | | | | | | 13/14 sp1 | 13/14 sp2 | 13/14 sp3 | 13/14 sp4 | | |
| MMKF05 | 7.5 | G2 | X | E | Product Development and Design Methodology | X | KS | KE | U | W | T | 4 |
| ETSA01 | 5 | G1 | - | S | Software Engineering Process - Methodology | X | KS | KE | U | W | T | 4 |

[MVKN35](#) Energy Markets: *Compulsory course in the elective block 'Energy and Environmental Engineering' for students admitted autumn 2011. The course is also an optional programme course.*

[MMT045](#) Flexible Manufacturing Systems: *Compulsory course in the elective block 'Industrial Product Design' for students admitted autumn 2011. The course is also an optional programme course.*

[EITF25](#) Internet - Techniques and Applications: *Compulsory course in the elective blocks 'Systems and Software Development' for students admitted autumn 2011. The course is also an optional programme course.*

[EMA051](#) Optimization: *Compulsory course in the elective block 'Mathematical Modelling' for students admitted autumn 2011. The course is also an optional programme course.*

[FHLA01](#) Solid Mechanics, Basic Course: *Compulsory course in the elective block 'Industrial Product Design' for students admitted autumn 2011. The course is also an optional programme course.*

[FKM015](#) Materials Engineering, Basic Course: *Compulsory course in the elective block 'Industrial Product Design' for students admitted autumn 2011. The course is also an optional programme course.*

[EDAA01](#) Programming - Second Course: *Compulsory course in the elective blocks 'Mathematical Modelling' and 'Systems and Software Development' for students admitted autumn 2011. The course is also an optional programme course.*

[EITF11](#) Digital Systems, Project Laboratory: *Compulsory course in the elective blocks 'Systems and Software Development' for students admitted autumn 2011. The course is also an optional programme course.*

[FMI040](#) Energy Systems Analysis: Renewable Sources of Energy: *Compulsory course in the elective block 'Energy and Environmental Engineering' for students admitted autumn 2011. The course is also an optional programme course.*

[FMIN05](#) Environmental System Studies: Climate, Science and Politics: *Compulsory course in the elective block 'Energy and Environmental Engineering' for students admitted autumn 2011. The course is also an optional programme course.*

[FBR012](#) Fundamental Combustion: *Compulsory course in the elective block 'Energy and Environmental Engineering' for students admitted autumn 2011. The course is also an optional programme course.*

[FMSN40](#) Linear and Logistic Regression with Data Gathering: *Compulsory course in the elective block 'Mathematical Modelling' for students admitted autumn 2011. The course is also an optional programme course. Only one of the courses [FMSN30](#) and [FMSN40](#) may be included in a degree.*

[FMN050](#) Numerical Analysis: *Compulsory course in the elective block 'Mathematical Modelling' for students admitted autumn 2011. The course is also an optional programme course.*

[MMKF05](#) Product Development and Design Methodology: *Compulsory course in the elective block 'Industrial Product Design' for students admitted autumn 2011. The course is also an optional programme course.*

[ETSA01](#) Software Engineering Process - Methodology: *Compulsory course in the elective block 'Systems and Software Development' for students admitted autumn 2011. The course is also an optional*

programme course.

Specialisation ai - Business and Innovation

| Course Code | Credits | Cycle | Mand./ Elect. | | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|---------------|--|-----------|-----------|-------------|----------|--|----------|---|-----|
| | | | | | | | | | | | | |
| INTN01 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E1 | Innovation Engineering | | KS KE U W T | 1 |
| MION25 | 7.5 | A | V | | 4 - 14/15 | 4 | - | S | Technology Strategy | | KS KE U W T | 1 |
| MION05 | 7.5 | A | V | | 4 - 14/15 | 4 | - | S | Business Marketing | | KS KE U W T | |
| INNN05 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Entrepreneurship in New and Established Ventures | | KS KE U W T | |
| MTT115 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Industrial Purchasing | | KS KE U W T | |
| MION20 | 7.5 | A | V | | 4 - 14/15 | 4 | - | S | Applied Business Analysis | | KS KE U W T | |
| INNN01 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Innovation Management | | KS KE U W T | |
| INNN10 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Globalization and Innovation | | KS KE U W T | |
| MAMN30 | 7.5 | A | V | | 4 - 14/15 | 3 | - | S | Management, Work Organisation and Project Management | | KS KE U W T | |
| MION30 | 7.5 | A | V | | 5 - 15/16 | 4 | - | S | Industrial Management | | KS KE U W T | 1 |
| INNN05 | 7.5 | A | V | | 5 - 15/16 | 4 | X | E | Entrepreneurship in New and Established Ventures | | KS KE U W T | |
| MTT115 | 7.5 | A | V | | 5 - 15/16 | 4 | X | E | Industrial Purchasing | | KS KE U W T | |

Specialisation fir - Financial Engineering and Risk Management

| Course Code | Credits | Cycle | Mand./ Elect. | | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|---------------|--|-----------|-----------|-------------|----------|--|----------|---|-----|
| | | | | | | | | | | | | |
| TEK103 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Financial Economics, Advanced Course | X | KS KE U W T | 1 |
| EMSF10 | 7.5 | G2 | V | | 4 - 14/15 | 3 | X | E1 | Stationary Stochastic Processes | X | KS KE U W T | 1 |
| EXTN80 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Economic and Financial Decision-making | X | KS KE U W T | |
| TEK110 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Economics, Empirical Finance | X | KS KE U W T | |
| TEK180 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Financial Valuation and Risk Management | X | KS KE U W T | |
| FMS091 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E1 | Monte Carlo and Empirical Methods for Stochastic Inference | | KS KE U W T | |
| FRTN20 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E1 | Market-driven Systems | | KS KE U W T | |
| FMS155 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E1 | Statistical Modelling of Extreme Values | | KS KE U W T | |
| FMSN25 | 7.5 | A | V | | 5 - 15/16 | 4 | X | E1 | Valuation of Derivative Assets | | KS KE U W T | 1 |
| FMS161 | 7.5 | A | V | | 5 - 15/16 | 4 | X | E1 | Financial Statistics | | KS KE U W T | |
| FMSN15 | 7.5 | A | V | | 5 - 15/16 | 5 | X | E1 | Statistical Modelling of Multivariate Extreme Values | | KS KE U W T | |

[TEK103](#) Financial Economics, Advanced Course: *The course is to be studied together with NEKN81, which is given by the Department of Economics. Does not follow the study period structure.*

[EMSF10](#) Stationary Stochastic Processes: *Only one of the courses [FMS045](#) and [EMSF10](#) may be included in a degree.*

[EXTN80](#) Economic and Financial Decision-making: *The course is to be studied together with NEKN22, which is given by the Department of Economics. Does not follow the study period structure.*

[TEK110](#) Economics, Empirical Finance: *The course is to be studied together with NEKN82, which is given by the Department of Economics. Does not follow the study period structure.*

[TEK180](#) Financial Valuation and Risk Management: *The course is to be studied together with NEKN83, which is given by the Department of Economics. Does not follow the study period structure.*

Specialisation Ip - Logistics and Production Management

| Course Code | Credits | Cycle | Mand./ Elect. | | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|---------------|--|-----------|-----------|-------------|----------|---|----------|---|-----|
| | | | | | | | | | | | | |
| MTTN40 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Packaging Technology and Development | | KS KE U W T | 1 |
| MTTN25 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Warehousing and Materials Handling | | KS KE U W T | 1 |
| MTTN35 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Packaging Logistics | | KS KE U W T | |
| MIOF10 | 7.5 | G2 | V | | 4 - 14/15 | 4 | X | E | Production and Inventory Control | | KS KE U W T | |
| MTT045 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | International Physical Distribution | | KS KE U W T | |
| MION01 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Management of Production and Inventory Systems | | KS KE U W T | |
| MION10 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Production Management | | KS KE U W T | |
| MTT240 | 7.5 | A | V | | 4 - 14/15 | 4 | X | E | Supply Chain Management | | KS KE U W T | |
| MION40 | 7.5 | A | V | | 5 - 15/16 | 4 | X | E1 | Simulation of Industrial Processes and Logistic Systems | | KS KE U W T | 1 |
| MION50 | 7.5 | A | V | | 5 - 15/16 | 4 | X | E | Quality Management | | KS KE U W T | |

Specialisation mf - Supply Chain Management

| Course Code | Credits | Cycle | Mand./ Elect. | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|---------------|-----------|-----------|-------------|----------|--|----------|---|-----|
| | | | | | | | | | | | |
| MTTN40 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Packaging Technology and Development | | KS KE U W T | 1 |
| MTTN25 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Warehousing and Materials Handling | | KS KE U W T | 1 |
| MTT115 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Industrial Purchasing | | KS KE U W T | |
| MIOF10 | 7.5 | G2 | V | 4 - 14/15 | 4 | X | E | Production and Inventory Control | | KS KE U W T | |
| MTT045 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | International Physical Distribution | | KS KE U W T | |
| MION01 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Management of Production and Inventory Systems | | KS KE U W T | |
| MTT240 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Supply Chain Management | | KS KE U W T | |
| MTTN20 | 7.5 | A | V | 5 - 15/16 | 5 | X | E | Supply Chain Information Systems | | KS KE U W T | 1 |
| MTTN35 | 7.5 | A | V | 5 - 15/16 | 4 | X | E | Packaging Logistics | | KS KE U W T | |

Specialisation pr - Production Engineering

| Course Code | Credits | Cycle | Mand./ Elect. | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|---------------|-----------|-----------|-------------|----------|---|----------|---|-----|
| | | | | | | | | | | | |
| MMT031 | 7.5 | A | V | 4 - 14/15 | 4 | - | S | Production Technology | | KS KE U W T | 1 |
| MTTN25 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Warehousing and Materials Handling | | KS KE U W T | 1 |
| MMT045 | 7.5 | A | V | 4 - 14/15 | 4 | - | S | Flexible Manufacturing Systems | | KS KE U W T | |
| MIOF10 | 7.5 | G2 | V | 4 - 14/15 | 4 | X | E | Production and Inventory Control | | KS KE U W T | |
| MIE080 | 7.5 | G2 | V | 4 - 14/15 | 3 | X | E1 | Automation | | KS KE U W T | |
| MION01 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Management of Production and Inventory Systems | | KS KE U W T | |
| MIE090 | 7.5 | A | V | 4 - 14/15 | 4 | X | E1 | Automation for Complex Systems | | KS KE U W T | |
| MION10 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Production Management | | KS KE U W T | |
| MION40 | 7.5 | A | V | 5 - 15/16 | 4 | X | E1 | Simulation of Industrial Processes and Logistic Systems | | KS KE U W T | 1 |
| MMTN10 | 7.5 | A | V | 5 - 15/16 | 4 | - | S | International Product Realisation | | KS KE U T | |
| MION50 | 7.5 | A | V | 5 - 15/16 | 4 | X | E | Quality Management | | KS KE U W T | |

Specialisation pvs - Software Intensive Systems

| Course Code | Credits | Cycle | Mand./ Elect. | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|---------------|-----------|-----------|-------------|----------|--|----------|---|-----|
| | | | | | | | | | | | |
| ERTN10 | 7.5 | A | V | 4 - 14/15 | 4 | X | E1 | Multivariable Control | | KS KE U W T | 1 |
| ETS05 | 7.5 | A | V | 4 - 14/15 | 4 | - | S | Software Development for Large Systems | | KS KE U W T | 1 |
| ERTN01 | 10 | A | V | 4 - 14/15 | 4 | X | E1 | Real-Time Systems | X | KS KE U W T | 1 |
| EDAN10 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Configuration Management | | KS KE U W T | |
| ETS170 | 7.5 | A | V | 4 - 14/15 | 4 | X | S | Requirements Engineering | | KS KE U W T | |
| ETS01 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Advanced Telecommunication | | KS KE U W T | |
| ETS200 | 7.5 | A | V | 4 - 14/15 | 4 | X | E | Software Testing | | KS KE U W T | |
| ERTN01 | 10 | A | V | 4 - 14/15 | 4 | X | E1 | Real-Time Systems | X | KS KE U W T | |
| ETS061 | 7.5 | A | V | 4 - 14/15 | 4 | X | E1 | Simulation | | KS KE U W T | |
| EITN35 | 7.5 | A | V | 5 - 15/16 | 4 | X | E1 | Advanced Course in Electrical and Information Technology | X | KS KE U W T | 1 |
| MION25 | 7.5 | A | V | 5 - 15/16 | 4 | - | S | Technology Strategy | | KS KE U W T | 1 |
| EITN35 | 7.5 | A | V | 5 - 15/16 | 4 | X | E1 | Advanced Course in Electrical and Information Technology | X | KS KE U W T | |
| EITN35 | | | | | | | | | X | | |
| EITN35 | | | | | | | | | X | | |

[ERTN01](#) Real-Time Systems: *The course is offered two times during the academic year 14/15. From the academic year 15/16 the course is given only in the spring semester.*

[EITN35](#) Advanced Course in Electrical and Information Technology: *The course starts only after agreement with the department. The course is not linked to any specific study period. The information on hours depends on the course running over a study period. Individual study plans are to be set up and approved.*

Elective Courses - I

| Course Code | Credits | Cycle | | Language | | | Course Name | Footnote | Links | |
|------------------------|---------|-------|-----------|-------------|---|----|--|----------|---|-----|
| | | Year | From year | S.Ex. stud. | | | | | | sp4 |
| EITN35 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Advanced Course in Electrical and Information Technology | X | KS KE U W T | 1 |
| EXTP50 | 7.5 | A | 4 - 14/15 | 4 | - | E | Advanced Microeconomic Analysis | | KS KE U W T | 1 |
| MMKF15 | 7.5 | G2 | 4 - 14/15 | 4 | X | E1 | Applied Robotics | | KS KE U W T | 1 |
| ETS052 | 4.5 | G2 | 4 - 14/15 | 3 | - | S | Computer Communication | | KS KE U W T | 1 |
| EXTN05 | 7.5 | A | 4 - 14/15 | 3 | X | E | Econometrics, Advanced Course | X | KS KE U W T | 1 |
| TEK103 | 7.5 | A | 4 - 14/15 | 4 | X | E | Financial Economics, Advanced Course | X | KS KE U W T | 1 |
| MION30 | 7.5 | A | 4 - 14/15 | 4 | - | S | Industrial Management | | KS KE U W T | 1 |

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|-----------|-----------|-------------|----------|--------------------------------------|----------|---|-----|
| | | | | | | | | | | |
| INTN01 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Innovation Engineering | | KS KE U W T | 1 |
| EMSE15 | 7.5 | G2 | 4 - 14/15 | 4 | X | E1 | Markov Processes | | KS KE U W T | 1 |
| ERTN10 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Multivariable Control | | KS KE U W T | 1 |
| EDA061 | 4.5 | G2 | 4 - 14/15 | 3 | - | S | Object-oriented Modelling and Design | | KS KE U W T | 1 |
| EXTF40 | 7.5 | G2 | 4 - 14/15 | 4 | - | S | Option Theory | X | KS KE U W T | 1 |
| MTTN40 | 7.5 | A | 4 - 14/15 | 4 | X | E | Packaging Technology and Development | | KS KE U W T | 1 |
| EXTF35 | 7.5 | G2 | 4 - 14/15 | 4 | - | S | Portfolio Selection | X | KS KE U W T | 1 |

| Course Code | Credits | Cycle | | Language | | | Course Name | Footnote | Links | |
|------------------------|---------|-------|-----------|-------------|---|----|--|----------|---|-----|
| | | Year | From year | S.Ex. stud. | | | | | | sp4 |
| MMT031 | 7.5 | A | 4 - 14/15 | 4 | - | S | Production Technology | | KS KE U W T | 1 |
| ETSN05 | 7.5 | A | 4 - 14/15 | 4 | - | S | Software Development for Large Systems | | KS KE U W T | 1 |
| EMSE10 | 7.5 | G2 | 4 - 14/15 | 3 | X | E1 | Stationary Stochastic Processes | X | KS KE U W T | 1 |
| MION25 | 7.5 | A | 4 - 14/15 | 4 | - | S | Technology Strategy | | KS KE U W T | 1 |
| MTTN25 | 7.5 | A | 4 - 14/15 | 4 | X | E | Warehousing and Materials Handling | | KS KE U W T | 1 |
| MTTN55 | 7.5 | A | 4 - 14/15 | 3 | X | E | Applied Logistics Simulation | | KS KE U W T | 1 |
| EMI050 | 7.5 | A | 4 - 14/15 | 3 | - | S | Energy Systems Analysis: Energy, Environment and Natural Resources | | KS KE U W T | 1 |

| Course Code | Credits | Cycle | | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|-----------|-----------|-------------|----------|--|----------|---|-----|
| | | Year | | | | | | | | |
| GEMA20 | 7.5 | G1 | 4 - 14/15 | 1 | - | E | English for Engineers | X | KS KE U W T | 1 |
| GEMA25 | 7.5 | G1 | 4 - 14/15 | 1 | - | S | German for Engineers | X | KS KE U W T | 1 |
| EITA05 | 4.5 | G1 | 4 - 14/15 | 1 | - | S | History of Technology | | KS KE U W T | 1 |
| GEMA60 | 7.5 | G1 | 4 - 14/15 | 1 | - | S | Law for Engineers, Introductory Course in Business Law | X | KS KE U W T | 1 |
| GEMA70 | 15 | G1 | 4 - 14/15 | 1 | - | S | Japanese for Engineers | X | KS KE U W T | 1 |
| EITN35 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Advanced Course in Electrical and Information Technology | X | KS KE U W T | |
| MION05 | 7.5 | A | 4 - 14/15 | 4 | - | S | Business Marketing | | KS KE U W T | |
| EDAN10 | 7.5 | A | 4 - 14/15 | 4 | X | E | Configuration Management | | KS KE U W T | |
| TEK190 | 7.5 | G2 | 4 - 14/15 | 3 | - | S | Econometrics | X | KS KE U W T | |
| EXTN80 | 7.5 | A | 4 - 14/15 | 4 | X | E | Economic and Financial Decision-making | X | KS KE U W T | |
| TEK110 | 7.5 | A | 4 - 14/15 | 4 | X | E | Economics, Empirical Finance | X | KS KE U W T | |
| INNN05 | 7.5 | A | 4 - 14/15 | 4 | X | E | Entrepreneurship in New and Established Ventures | | KS KE U W T | |
| FMS161 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Financial Statistics | | KS KE U W T | |
| EXTF30 | 7.5 | G2 | 4 - 14/15 | 3 | - | S | Fixed Income Securities | X | KS KE U W T | |

| Course Code | Credits | Cycle | | Language | | | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|-----------|----------|-------|----|---|----------|---|-----|
| | | Year | From year | S.Ex. | stud. | | | | | |
| MTT115 | 7.5 | A | 4 - 14/15 | 4 | X | E | Industrial Purchasing | | KS KE U W T | |
| FMS051 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Mathematical Statistics, Time Series Analysis | | KS KE U W T | |
| EXTP15 | 7.5 | A | 4 - 14/15 | 4 | - | E | Microeconomics - Individual Choice | X | KS KE U T | |
| FMNN10 | 8 | A | 4 - 14/15 | 4 | X | E1 | Numerical Methods for Differential Equations | | KS KE U W T | |
| MTTN35 | 7.5 | A | 4 - 14/15 | 4 | X | E | Packaging Logistics | | KS KE U W T | |
| MIOF10 | 7.5 | G2 | 4 - 14/15 | 4 | X | E | Production and Inventory Control | | KS KE U W T | |
| MION35 | 7.5 | A | 4 - 14/15 | 4 | X | E | Quality and Maintenance Management | | KS KE U W T | |
| ETS170 | 7.5 | A | 4 - 14/15 | 4 | X | S | Requirements Engineering | | KS KE U W T | |
| EITN35 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Advanced Course in Electrical and Information Technology | X | KS KE U W T | |
| ETSNO1 | 7.5 | A | 4 - 14/15 | 4 | X | E | Advanced Telecommunication | | KS KE U W T | |
| MION20 | 7.5 | A | 4 - 14/15 | 4 | - | S | Applied Business Analysis | | KS KE U W T | |
| MIE080 | 7.5 | G2 | 4 - 14/15 | 3 | X | E1 | Automation | | KS KE U W T | |
| EIT070 | 6 | G2 | 4 - 14/15 | 3 | - | S | Computer Organization | | KS KE U W T | |
| TEK140 | 7.5 | G2 | 4 - 14/15 | 3 | X | E | Economics, Industrial Organization | X | KS KE U W T | |
| MVKN20 | 7.5 | A | 4 - 14/15 | 4 | - | S | Energy Utilization | | KS KE U W T | |
| TEK180 | 7.5 | A | 4 - 14/15 | 4 | X | E | Financial Valuation and Risk Management | X | KS KE U W T | |
| INNN01 | 7.5 | A | 4 - 14/15 | 4 | X | E | Innovation Management | | KS KE U W T | |
| MTT045 | 7.5 | A | 4 - 14/15 | 4 | X | E | International Physical Distribution | | KS KE U W T | |
| MION01 | 7.5 | A | 4 - 14/15 | 4 | X | E | Management of Production and Inventory Systems | | KS KE U W T | |
| FRT095 | 4.5 | A | 4 - 14/15 | 3 | - | S | Mathematical Modelling, Advanced Course | | KS KE U W T | |
| FMS091 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Monte Carlo and Empirical Methods for Stochastic Inference | | KS KE U W T | |
| ETIA10 | 7.5 | G1 | 4 - 14/15 | 3 | X | E | Patent and Intellectual Property Rights | | KS KE U W T | |
| FMSF05 | 7.5 | G2 | 4 - 14/15 | 4 | X | E1 | Probability Theory | | KS KE U W T | |
| ETS200 | 7.5 | A | 4 - 14/15 | 4 | X | E | Software Testing | | KS KE U W T | |
| GEMA65 | 7.5 | G1 | 4 - 14/15 | 1 | - | S | Chinese for Engineers | X | KS KE U T | |
| EDA216 | 7.5 | G2 | 4 - 14/15 | 4 | X | S | Database Technology | | KS KE U W T | |
| GEMA20 | 7.5 | G1 | 4 - 14/15 | 1 | - | E | English for Engineers | X | KS KE U W T | |
| GEMA40 | 7.5 | G1 | 4 - 14/15 | 1 | - | S | Entrepreneurship and Business Development | X | KS KE U W T | |
| GEMA01 | 7.5 | G1 | 4 - 14/15 | 1 | - | S | French for Engineers: Language, Culture and Society, First Course | X | KS KE U W T | |
| MMK070 | 7.5 | G2 | 4 - 14/15 | 3 | X | E | Industrial Design | | KS KE U W T | |

| Course Code | Credits | Cycle | | Language | | | Course Name | Footnote | Links | |
|------------------------|---------|-------|-----------|-------------|---|----|--|----------|---|----------------|
| | | Year | From year | S.Ex. stud. | | | | | | sp4 |
| GEMA60 | 7.5 | G1 | 4 - 14/15 | 1 | - | S | Law for Engineers, Introductory Course in Business Law | X | KS KE U W T | |
| EITN35 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Advanced Course in Electrical and Information Technology | X | KS KE U W T | |
| MIE090 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Automation for Complex Systems | | KS KE U W T | |
| TEK190 | 7.5 | G2 | 4 - 14/15 | 3 | - | S | Econometrics | X | KS KE U W T | |
| MVKN15 | 7.5 | A | 4 - 14/15 | 4 | - | S | Energy Supply Systems | | KS KE U W T | |
| EXTF30 | 7.5 | G2 | 4 - 14/15 | 3 | - | S | Fixed Income Securities | X | KS KE U W T | |
| MMTN05 | 7.5 | A | 4 - 14/15 | 1 | - | S | Flexible Manufacturing Systems, Advanced Course | | KS KE U W T | |
| INNN10 | 7.5 | A | 4 - 14/15 | 4 | X | E | Globalization and Innovation | | KS KE U W T | |
| KII010 | 7.5 | G2 | 4 - 14/15 | 4 | - | E1 | Industrial Environmental Management | | KS KE U W T | |
| FMSN30 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Linear and Logistic Regression | X | KS KE U W T | |
| MAMN30 | 7.5 | A | 4 - 14/15 | 3 | - | S | Management, Work Organisation and Project Management | | KS KE U W T | |
| FRTN20 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Market-driven Systems | | KS KE U W T | |
| MTTN30 | 7.5 | A | 4 - 14/15 | 4 | X | E | Process-based Business Development | | KS KE U W T | |
| MION10 | 7.5 | A | 4 - 14/15 | 4 | X | E | Production Management | | KS KE U W T | |
| ETS061 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Simulation | | KS KE U W T | |
| FMS155 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Statistical Modelling of Extreme Values | | KS KE U W T | |
| MTT240 | 7.5 | A | 4 - 14/15 | 4 | X | E | Supply Chain Management | | KS KE U W T | |
| FMF170 | 7.5 | G2 | 4 - 14/15 | 3 | X | E | Complex Economy | X | KS KE U W T | Course on hold |
| EXTP10 | 7.5 | A | 4 - 14/15 | 4 | - | E | Microeconomics - Strategic Interaction | X | KS KE U T | Course on hold |
| FMSN35 | 7.5 | A | 4 - 14/15 | 4 | X | E1 | Stationary and Non-stationary Spectral Analysis | X | KS KE U W T | Course on hold |
| GEMA55 | 6 | G1 | 4 - 14/15 | 1 | - | S | Medicine for Engineers | X | KS KE U W T | Course on hold |
| GEMA45 | 3 | G1 | 4 - 14/15 | 1 | - | S | Teaching and Learning | X | KS KE U W T | Course on hold |
| MTTN45 | 7.5 | A | 4 - 14/15 | 4 | X | E | Humanitarian Logistics - disaster relief and logistics in developing countries | X | KS KE U W T | Course on hold |
| MTTN20 | 7.5 | A | 5 - 15/16 | 5 | X | E | Supply Chain Information Systems | | KS KE U W T | 1 |

| Course Code | Credits | Cycle | Year | From year | S.Ex. stud. | Language | Course Name | Footnote | Links | sp4 |
|------------------------|---------|-------|-----------|-----------|-------------|----------|--|----------|---|-----|
| | | | | | | | | | | |
| EITN35 | 7.5 | A | 5 - 15/16 | 4 | X | E1 | Valuation of Derivative Assets | | KS KE U W T | 1 |
| MTTN15 | 7.5 | A | 5 - 15/16 | 4 | X | E1 | Project in Logistics | | KS KE U W T | 1 |
| INNN05 | 7.5 | A | 5 - 15/16 | 4 | X | E | Entrepreneurship in New and Established Ventures | | KS KE U W T | |
| MTT115 | 7.5 | A | 5 - 15/16 | 4 | X | E | Industrial Purchasing | | KS KE U W T | |

[EITN35](#) Advanced Course in Electrical and Information Technology: *The course starts only after agreement with the department. The course is not linked to any specific study period. The information on hours depends on the course running over a study period. Individual study plans are to be set up and approved.*

[EXTN05](#) Econometrics, Advanced Course: *The course is to be studied together with NEKN31, which is given by the Department of Economics. Does not follow the study period structure.*

[TEK103](#) Financial Economics, Advanced Course: *The course is to be studied together with NEKN81, which is given by the Department of Economics. Does not follow the study period structure.*

[EXTF40](#) Option Theory: *The course is to be studied together with NEKH82, which is given by the Department of Economics. Does not follow the study period structure.*

[EXTF35](#) Portfolio Selection: *The course is to be studied together with NEKH81, which is given by the Department of Economics. Does not follow the study period structure.*

[FMSE10](#) Stationary Stochastic Processes: *Only one of the courses [FMS045](#) and [FMSE10](#) may be included in a degree.*

[GEMA20](#) English for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA25](#) German for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA60](#) Law for Engineers, Introductory Course in Business Law: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA70](#) Japanese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[TEK190](#) Econometrics: *The course is to be studied together with NEKG31, which is given by the Department of Economics. Does not follow the study period structure.*

[EXTN80](#) Economic and Financial Decision-making: *The course is to be studied together with NEKN22, which is given by the Department of Economics. Does not follow the study period structure.*

[TEK110](#) Economics, Empirical Finance: *The course is to be studied together with NEKN82, which is given by the Department of Economics. Does not follow the study period structure.*

[EXTF30](#) Fixed Income Securities: *The course is to be studied together with NEKG81, which is given by the Department of Economics. Does not follow the study period structure.*

[EXTP15](#) Microeconomics - Individual Choice: *The course is to be studied together with NEKP21, which is given by the Department of Economics. Does not follow the study period structure.*

[TEK140](#) Economics, Industrial Organization: *The course is to be studied together with NEKH21, which is given by the Department of Economics. Does not follow the study period structure.*

[TEK180](#) Financial Valuation and Risk Management: *The course is to be studied together with NEKN83, which is given by the Department of Economics. Does not follow the study period structure.*

[GEMA65](#) Chinese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA40](#) Entrepreneurship and Business Development: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA01](#) French for Engineers: Language, Culture and Society, First Course: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[FMSN30](#) Linear and Logistic Regression: *Only one of the courses [FMSN30](#) and [FMSN40](#) may be included in a degree.*

[FMF170](#) Complex Economy: *The course is offered every other academic year and will next be offered in 2015/16.*

[EXTP10](#) Microeconomics - Strategic Interaction: *The course is offered every other academic year and will be offered again in 2015/16.*

[FMSN35](#) Stationary and Non-stationary Spectral Analysis: *The course is offered every other academic year and will next be offered in 2015/16.*

[GEMA55](#) Medicine for Engineers: *The course is offered every other academic year and will next be offered in 2015/16. LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA45](#) Teaching and Learning: *The course is offered every other academic year and will next be offered in 2015/16. LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[MTTN45](#) Humanitarian Logistics - disaster relief and logistics in developing countries: *The course is offered every other academic year and will next be offered in 2015/16.*

Bachelor's Projects - I

The list contains the bachelor's projects that are included in the I programme. The list is not necessarily complete before the academic year 2016/17.

Links

| Course Code | Credits | Course Name | Links |
|-------------|---------|---|---|
| FMSL01 | 15 | Bachelor Project in Mathematical Statistics | KS KE U W |
| MIOL01 | 15 | Bachelor Project in Production Management | KS KE U |

Degree Projects - I

The list contains the degree project courses that are included in the I programme.

Links

| Course Code | Credits | Course Name | Links |
|-------------|---------|--|---|
| FRT820 | 30 | Degree Project in Automatic Control for Engineers | KS KE U W |
| EDA920 | 30 | Degree Project in Computer Sciences for Engineers | KS KE U W |
| EITM01 | 30 | Degree Project in Electrical and Information Technology | KS KE U W |
| MVK920 | 30 | Degree Project in Energy Sciences | KS KE U W |
| MTT820 | 30 | Degree Project in Engineering Logistics | KS KE U W |
| FKM820 | 30 | Degree Project in Engineering Materials | KS KE U W |
| FMI820 | 30 | Degree Project in Environmental Studies | KS KE U W |
| MAM920 | 30 | Degree Project in Ergonomics for Engineers | KS KE U W |
| EXTM10 | 30 | Degree Project in Financial Economics | KS KE U W |
| EIE920 | 30 | Degree Project in Industrial Electrical Engineering and Automation | KS KE U W |
| INN920 | 30 | Degree Project in Innovation | KS KE U |
| INTM01 | 30 | Degree Project in Innovation Engineering | KS KE U W |
| MMK820 | 30 | Degree Project in Machine Design for Engineers | KS KE U W |
| FMS820 | 30 | Degree Project in Mathematical Statistics for Engineers | KS KE U W |
| FMA820 | 30 | Degree Project in Mathematics for Engineers | KS KE U W |
| FME820 | 30 | Degree Project in Mechanics for Engineers | KS KE U W |
| FMN820 | 30 | Degree Project in Numerical Analysis | KS KE U W |
| MTT920 | 30 | Degree Project in Packaging Logistics | KS KE U W |
| PHYM01 | 30 | Degree Project in Physics | KS KE U W |
| MMTM01 | 30 | Degree Project in Production and Materials Engineering | KS KE U W |
| MIO920 | 30 | Degree Project in Production Management | KS KE U W |
| FHL820 | 30 | Degree Project in Solid Mechanics for Engineers | KS KE U W |